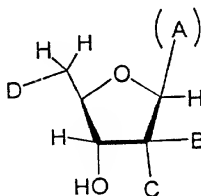


INHIBITORS OF ADP-RIBOSYL TRANSFERASES, CYCLASES,  
AND HYDROLASES, AND USES THEREOF

Abstract of the Disclosure

**[0087]** The present invention provides compounds having the formula:



wherein A is chosen from a nitrogen-, oxygen-, or sulfur-linked aryl, alkyl, cyclic, or heterocyclic group; both B and C are hydrogen, or either B or C is a halogen, amino, or thiol group and the other of B or C is hydrogen; and D is a primary alcohol, a hydrogen, or an oxygen, nitrogen, carbon, or sulfur linked to phosphate, a phosphoryl group, a pyrophosphoryl group, or adenosine monophosphate through a phosphodiester or carbon-, nitrogen-, or sulfur-substituted phosphodiester bridge, or to adenosine diphosphate through a phosphodiester or carbon-, nitrogen-, or sulfur-substituted pyrophosphodiester bridge.

**[0088]** The present invention also provides pharmaceutical compositions containing the above compounds, methods of using the above compounds as pharmaceuticals, and processes for preparing the above compounds.

**[0089]** Also provided are methods for inhibiting an ADP-ribosyl transferase, ADP-ribosyl cyclase, or ADP-ribosyl hydrolase enzyme, and methods for treating a disease or condition associated with an ADP-ribosyl transferase, ADP-ribosyl cyclase, or ADP-ribosyl hydrolase enzyme in a subject in need of treatment thereof.